ENVIRONMENTAL ASSESSMENT

CENTRAL VALLEY WATER PROJECT SERVICE AREA EXPANSION FOR CITY OF SHASTA LAKE

Section 2, T. 32 N., R. 5 W., M.D. B.&M.
City of Shasta Lake, California

United States Department of the Interior
U. S. Bureau of Reclamation, Mid-Pacific Region
Northern California Area Office
16349 Shasta Dam Boulevard
Shasta Lake, CA 96019-8400

June 27, 2002

INTRODUCTION

This Environmental Assessment (EA) evaluates the impacts of enlarging the area in which the City of Shasta Lake (Shasta Lake) can deliver the water it receives from the Central Valley Project (CVP), pursuant to its Interim Renewal Contract Number 4-07-20-W1134-IR8 (Contract W1134-IR8) with the United States.

The Proposed Action is the Bureau of Reclamation (Reclamation) approval of Shasta Lake's request to add approximately 230 contiguous acres, located in the southwest corner of Shasta Lake's city limit, known as "Area A" (see Figures 1-3) to Shasta Lake's Contractor's Service Area under Contract W1134-IR8. This action would allow delivery of water obtained under Contract W1134-IR8 to Area A, including reclaimed water. This delivery of reclaimed water to industrial users would effectively increase Shasta Lake's water supply, but it would not change the quantity of raw or potable water available to Shasta Lake pursuant to Contract W1134-IR8.

Descriptions of the purpose and need of the Proposed Action, description of the Proposed Action and alternatives, and analyses of the impacts of the Proposed Action are given below.

PURPOSE AND NEED FOR ACTION

The purpose of the Proposed Action is to allow Shasta Lake to supply CVP water to Area A under Contract W1134-IR8.

The Proposed Action is needed because Shasta Lake cannot meet all long-term water demands in Area A without an ability to deliver CVP water, whether potable or reclaimed, to Area A under Contract W1134-IR8, or the acquisition of reliable supplies of non-CVP water. The existing supplies under Shasta Lake's contract with the Shasta County Water Agency (SCWA), which can be used in Area A without further action by Reclamation, could supply all existing and foreseeable future development in Area A with the exception of the Knauf Fiber Glass GmbH (Knauf), fiberglass manufacturing plant (Knauf Project). Approval of the Proposed Action would allow delivery of enough CVP water, either potable or reclaimed, to meet all foreseeable demands in Area A, including the Knauf Project.

PROPOSED ACTION AND ALTERNATIVE

This EA analyzes the environmental consequences of the Proposed Action.

No Action Alternative

Under the No Action Alternative, the current water service area, which excludes Area A, would remain unchanged. Shasta Lake would be able to supply the developments in Area A, except the Knauf Project, with the 50 acre-feet per year it obtains from the SCWA, but would be dependent on non-CVP water to supply the Knauf Project's needs. In the near term, the Knauf Project would be supplied with ample water from Shasta Lake's 2-year contract with the Centerville Community Services District (CCSD), but supplies beyond that are uncertain. However, because the Knauf Project is operational and represents a substantial investment, it is probable Shasta Lake would, if necessary, acquire water rights from either an up-stream water rights holder or negotiate a long-term contract with the CCSD for water to supply Knauf without Federal involvement.

Proposed Action

This action would expand Shasta Lake's CVP **Contractor's Service Area** to include Area A. Expansion would enable Shasta Lake to provide both potable and reclaimed water to Area A developments, including the Knauf Project.

This EA assumes the "maximum impact scenario" for the Proposed Action, wherein the Knauf Project, which plans to use reclaimed water for most of its operations, would be supplied potable water for both domestic and manufacturing purposes. This may be necessary for brief periods as a result of breakdowns in the waste water treatment process, but are not expected to be the norm, even though that was assumed for this EA to give a maximum impact analysis.

Alternatives Identified But Not Considered Further

Use of local ground water was deemed infeasible because supplies in the immediate area are virtually non-existent.

Use of imported ground water from the abundant reserves south of Redding would require extensive pipelines, and nearly 500 feet of vertical lift, once the groundwater was at the surface, for a total lift of perhaps 600 feet. This was deemed improbable, given that water acquired from an upstream user probably could be conveyed to the area with less capital and operating expense.

Use of recycled water, in which the SCWA water is reclaimed multiple times, is not feasible because the wastewater delivered to the Knauf Project is essentially consumed by incorporation into the project or lost to the atmosphere.

Use of surface water under long-term contracts with downstream users would not physically differ from the Proposed Action. Moreover, because the downstream users on the Sacramento River hold either water service contracts, or water settlement contracts, Reclamation's concurrence would be required. Concurrence would trigger exactly the same procedural requirements as the Proposed Action, and thus it is effectively the same as the Proposed Action. Three exceptions occur, but each is uncertain as a water source. The SCWA has a service area that includes Area A, but it has already subcontracted its water supply. The McConnell Foundation has 5,100 acre-feet per year, and the CCSD has 900 acre-feet per year which could be used in Area A without further Reclamation action. However, the McConnell Foundation is not making long term commitments of its water at this time, and the CCSD will need its water over the long term. None of these exceptions is, therefore, a promising source for long term supplies of CVP water that can be used in Area A without further approvals.

Use of surface water purchased from up-stream water rights holders would be feasible since non-CVP water obtained from water rights holders upstream of Shasta Dam and reservoir could be diverted below Keswick Dam and piped uphill to Area A. The feasibility of this is demonstrated by the existence of water facilities, owned by the City of Redding, that do precisely this and that have formerly supplied water to Area A. However, any analysis of the impacts of the construction and operation of these facilities would be speculative and unrelated to any action by Reclamation, and the impacts in Area A would be the same as the impacts of the Proposed Action, except that the Proposed Action would avoid the need to construct and operate new diversion and delivery facilities. Thus, the Proposed Action would have less environmental impact, and would be more cost effective than a purchase of upstream rights and diversion and conveyance through non-Federal facilities. Therefore, this alternative was not reviewed further.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section evaluates the environmental impacts associated with the Proposed Action. This analysis focuses on the operation of the Knauf Project**, which is the only development or activity in Area A that could not occur on a sustained basis without the Proposed Action, a ong-term, non-CVP water supply, or a long-term contract with CCSD or the McConnell foundation.**

The data used in this analysis **are** primarily derived from Shasta Lake's Environmental Impact Report (EIR) for Shasta Lake's Conditional Use Permit No. 96-07 which authorized the construction of the Knauf Project Knauf Fiber Glass Manufacturing Facility Revised Draft EIR, July 1997; Final EIR, October 22, 1997, State Clearing House No. 961120701). **The Final** EIR, which assessed the potential impacts for the project as a whole prior to construction, is included in this EA by reference. Separate environmental analyses were prepared by **other** Federal agencies for the issuance of their permits under Federal law.

Physical Resources: Water Supplies

Water Supply

Shasta Lake has 2,800 acre-feet per year of long term supplies. This includes 2,750 acre-feet of CVP water under Contract W1134-IR8 which can only be used within the contract service area, and 50 acre-feet of CVP water under the SCWA subcontract which can be used anywhere within the city limits. Small amounts of water are available, on an emergency bases, under back-up agreements with the Bella Vista Water District and the City of Redding which are limited to use in the CVP service area. In addition, Shasta Lake has a short term supply of 240 acre-feet per year, for 2 years, from the CCSD which can be used anywhere within the city limits.

The quantity of water under subcontract with the SCWA has been, and remains, adequate for the minor users in Area A and for the foreseeable development of the area except for the Knauf Fiber Glass GmbH (Knauf) fiberglass manufacturing plant (Knauf Project). However, water for the initial operation of the Knauf Project comes from the contract with the CCSD.

The Proposed Action would not affect Shasta Lake's water supply as the contract volumes would be unchanged. However, approval of the Proposed Action would allow Shasta Lake to reuse water obtained under Contract W1134-IR8 in Area A and provide Knauf with a reliable water supply.

Current Water Demand

Shasta Lake currently consumes approximately 2,500 acre-feet per year (2.23 million gallons per day (mgd)) or 250 acre-feet per year less than that which is available under the City's interim CVP contract. (See the table at the end of this EA.) Long term, Shasta Lake projects a total city-wide consumption of 6,250 acre-feet per year, although Reclamation estimated a 2025 demand for 3,403 acre-feet per year during its assessment of contractors' needs as part of the CVP-wide Long Term Contract Renewal process.

Expansion of Shasta Lake's CVP Contractor's Service Area would authorize the city to distribute CVP water, both reclaimed and potable, to the Knauf Project and other future uses in Area A. The Knauf Project would use as much as 225 acre-feet per year, of the 250 acre-feet per year remaining in Shasta

Lake's CVP contract, if Knauf were unable to use reclaimed water as planned in its manufacturing processes. Other industrial uses could further increase water demands in Area A over the long term.

Because the Knauf Project occupies 94 acres of the 230 acres in Area A, up to136 gross acres would be left for other industrial development. Shasta Lake estimates that the 136 gross acres yields approximately 90 acres of development space after excluding accessory uses, such as parking lots, streets, and open space. Shasta Lake estimates, based on existing water use rates, that industrial development consumes approximately two single family equivalents per acre (SFE/acre). Accordingly, Shasta Lake anticipates that development of industrial uses in Area A, besides the Knauf Project, would increase water usage by about 180 SFE[1]. That number converts to 43,200 gpd[2], or approximately 48 acre-feet per year[3]. That amount of water use, coupled with the 225 acre-feet per year of water needed by the Knauf Project, totals about 274 acre-feet per year or 26 acre-feet per year less than Shasta Lake has left from all its long term supplies. However, since Area A is partially developed already, these figures probably overestimate the actual additional demand to be expected. Hence, apart form the Knauf Project, the demand in Area A, the SCWA water could meet demand in the absence of the Proposed Action.

Approximately 52 acre-feet per year of the 225 acre-feet per year used by the Knauf project would be potable water, or roughly enough to serve 196 residences. About 50 acre-feet per year of this 52 acre-feet per year would be required for the fiber glass manufacturing process and a little less than 1.5 acre-feet per year would supply restrooms, locker rooms, and a lunchroom/ break room.

The Knauf plant would use 174 acre-feet per year of reclaimed water in its manufacturing process, unless reclaimed water were found to adversely impact product quality. In any case potable water would be the backup for the manufacturing process requirements. If potable water were used intermittently, and for short periods, then the Knauf Project would need only a small fraction of its maximum total yearly demand for process water. The Knauf Project would, for example, use only about 18.5 acre-feet per year even if it had to rely on potable manufacturing process water for one month each year.

Forecasted Water Demand

---

[1]/ 90 acres x 2 SFE/acre = 180 SFE.

[2]/ 180 SFE x 240 gpd/SFE = 43,200 gpd.

[3]/ 43,200 gpd x 365 days/year ÷ 325,850 g/af = 48.4 acre-feet per year.

Shasta Lake's General Plan projects a population growth from the current 10,000 people to approximately 25,000, which would create a water demand roughly 2.5 times the current supply, independent of the proposed inclusion of Area A. Like most CVP water contractors, Shasta Lake will be unable to meet its projected demand unless it implements conservation programs and acquires supplemental water, but even so the prospects are not promising. The Knauf Project, would use 2 percent of Shasta Lake's secure, potable water supply if operated with reclaimed water as proposed, and about 8 percent if only potable water were to be used. Shasta Lake would thereby use most of its remaining, secure potable water supply if only potable water were to be used.

Distribution

CVP water enters Shasta Lake's treatment and distribution system at Lake Shasta, where it is pumped through a pump station operated by Reclamation to Shasta Lake's water treatment plant. The water treatment plant has a capacity of 19 acre-feet per day (6.2 mgd) and presently operates at an average of 6.8 acre-feet per day (2.23 mgd). During limited periods of the year, when water demand is the greatest, the water treatment plant has operated at 17.2 acre-feet per day. The general plan for Shasta Lake provides for expanding the water treatment plant by 7.7 acre-feet per day (2.5 mgd) in the near future.

The Knauf Project site, the largest Area A commercial development, is served potable water by an existing 12-inch water main that parallels District Drive, which runs along the eastern boundary of the Knauf property. The main has unused capacity to deliver approximately 4,967 acre-feet per year (4.4 mgd). This is 22 times the Knauf Project's total demand of 225 acre-feet per year for potable water.

The Proposed Action would not affect the distribution system since the trunk distribution system can accommodate the needs of Area A, and the connections of the Knauf Project to Shasta Lake's facilities have already been constructed.

CVP Operations

Reclamation has determined there would be no identifiable impacts to the CVP operations as a result of the expansion of the area of use for water under Shasta Lake's CVP Contract W1134-IR8. Therefore, no impacts associated with water delivery, availability of water, or other impacts to the CVP operations are anticipated as a result of the proposed expansion of the service area.

Physical Resources: Air and Water Quality

The project, as permitted, would not violate Federal air or water quality standards set at levels intended to protect public health and environmental quality. The most notable air quality problem, reported by

the EIR, was an exceedence of state PM10 standards on an unoccupied hilltop west of the Knauf Project under maximum impact assumptions. The allowable emissions were subsequently reduced during the permitting process and even this exceedence is not expected to occur. Similarly, the effluents from the plant will go to the waste water treatment plant for treatment before release to the environment.

Physical Resources: Other

The area proposed for inclusion into the Shasta Lake Service area is typical of the foothills to the north and west of Redding. The topography is level, to gently rolling, with the red clay and cobble-rich soils typical of much of Redding area's foothills. Drainage of the site is by means of Churn Creek and seasonal streams tributary to it (Figure 3). No unique geologic features are present.

No new, short term impacts associated with water delivery are anticipated as a result of the proposed expansion of the **C**ontractor's **S**ervice **A**rea for use of CVP water by Shasta Lake. Under the Proposed Action, water would be removed from Shasta Lake, processed and delivered to the area using existing facilities. No alterations or additions to those facilities would be required as a result of the Proposed Action, although minor water service lines would be needed for any new construction. The expansion of the **Contractor's S**ervice **A**rea would not adversely affect unique geological features such as: wetlands, wild or scenic rivers, refuges, flood plains, rivers, or prime or unique farmlands.

Long term effects would be limited to those associated with construction in an industrial park, **and** are consistent with Shasta Lake's General Plan and Zoning Ordinance, and would be preceded by environmental reviews under the California Environmental Quality Act and appropriate Federal air and water quality laws. **Mitigation would be required for any future impacts deemed significant under State law and, generally, under Federal regulations as well.**

Biological Resources

The vegetation of the area proposed for inclusion is dominated by the blue oak-grey pine woodland typical of the foothills of the northern Sacramento Valley and **lacks any extensive or well developed occurrences of the specialized habitats required by Federally listed species and candidate species occurring in Shasta County. Wetlands, for example, are represented by small areas that should be easy to avoid or mitigate.** Most would be in the portion of Area A designated as "community park" on a land use map provided by Shasta Lake. In any case, no impacts would occur, that could not occur in the absence of the Proposed Action, because Shasta Lake could, and plausibly would, obtain water from up-stream water rights holders if the Proposed Action were not adopted.

Of the16 Federally listed and candidate species subject to impacts by projects in Shasta County, 4 are residents of vernal pools. A small area of vernal pools, and hence potential habitat, occurs east of the proposed inclusion, but not in the inclusion itself or in areas potentially affected by drainage from the site. The county's major areas of vernal pools are 10 miles, or more, to the east and southeast. There would be no affect on the Federally listed vernal pool species, the vernal pool fairy shrimp (*Branchinecta lynchi*), the vernal pool tadpole shrimp (*Lepidurus packardi*), the slender Orcutt grass (*Orcuttia tenuis*) and Greene's tuctoria (*Tuctoria greenei*). A survey of the Knauf site by the U.S. Fish and Wildlife Service in April 1997 concluded the seasonal wetlands seen were not suitable for these species.

Three of the listed and candidate species are inhabitants of the riparian zones of perennial streams, or permanent pools within intermittent streams. The California red-legged frog (*Rana aurora draytonii*), which historically occurred as far north as the Redding area, may use intermittent streams but requires access to perennial water, a resource absent from the vicinity of the proposed inclusion. The valley long horn elderberry beetle (*Desmocerus californicus dimorphus*) relies upon large elderberry bushes that require good perennial water supplies, a condition not met at the site that has marked summer droughts. No elderberry bushes were observed in surveys conducted before construction of the Knauf Project. Consequently, the borders of the drainages on the site are basically the local oak-pine forest, not the distinctively riparian zone used by the yellow-billed cuckoo (*Coccyzus americanus occidentalis*), another riparian zone species.

Five species require perennial streams. The Shasta crayfish (*Pacifastacus fortis*) is a species found in cold, spring fed tributaries of the mid reaches of the Pit River, and requires cobble or boulder substrates, rather than the clay-rich bottoms of the intermittent drainages crossing the site. The four runs of Chinook salmon (*Oncorhynchus tshawytscha*) require cold, perennial streams, and are all present in the Sacramento River, downstream of the mouth of Churn Creek, the intermittent tributary of the Sacramento River into which the site drains. The site appears to represent less than 2 percent of the Churn Creek drainage, and makes a rather small contribution to the runoff of Churn Creek, even if one assumes the rainfall at the site is twice that of the watershed as a whole. The effects on the Sacramento River would be negligible. Given the lack of perennial water sources near the site and the modest contributions of drainage from the site to the Sacramento River, no affect on listed or candidate species is expected, even though Chinook probably use the lower reaches of Churn Creek for non-natal rearing, and, in the case of the fall run, limited spawning.

One species, the steelhead (*Oncorhynchus mykiss*) uses ephemeral streams for spawning, but it requires moderate to fast flowing, well oxygenated waters and gravelly substrates for breeding. Neither condition is met by the drainages on the site. The stream reaches downstream of the site may be useful for portions of the steelhead's life cycle, but are unsuitable for both spawning and rearing since the stream dries up in the summer and for the portion of the period when water is present the temperatures

would be lethal. Given the relatively small contribution the site appears to make to stream flow in Churn Creek, no affect is expected from any runoff from the site, or any discharges, which meet the Regional Water Resources Control Boards standards.

Two of the species potentially affected by projects in Shasta County, the Delta smelt (*Hypomesus transpacificus*) and the Sacramento splittail (*Pogonichthlys macrolepidotus*) are species now restricted to the Delta and adjacent areas. As such, they would only be affected by large water management projects or operational changes in such projects, and would not be affected by projects of the scale of the Proposed Action.

The bald eagle (*Haliaeetus leucocephalus*) may occasionally transit the area because a relatively large, 18 nesting pairs, resident population occurs to the north at Shasta Lake. Habitat also occurs to the west and south of the site along the Sacramento River. Use of the site, even for foraging, is unlikely however, because the bald eagle feeds predominantly on fish and waterfowl. Neither food source is to be found on the site. Thus, no affect is expected on this species.

The northern spotted owl (*Strix occidentalis caurina*), a species associated with old growth conifer forests, may occur in the northern portions of the county but would lack suitable habitat at the site, where the trees are small oaks, generally less than 12 inches diameter at breast height, with scattered, larger pines that may be as larger as 30 inches at breast height. The owl requires a multi-layered, multi-species canopy with large trees (> 30 inches diameter at breast height overstory trees and forests with a moderate to high canopy closure 60 to 80 percent); and a high incidence of large trees with various deformities such as large cavities or broken tops. No such forests occur at or near the site.

Given that suitable habitat for anadromous fish is absent at the site and that hydrological affects of development of the site would be minor, no affects are expected on either listed species or species that are candidates for listing.

Limited impacts to unlisted plants and wildlife are anticipated because no **major infrastructure changes would be necessary to deliver potable water to the expanded area of use, and no changes would occur in the amount of water provided to Shasta Lake as a result of the Proposed Action.** The site alterations required for the waste water treatment plant, the Knauf plant, and the two other commercial facilities in Area A have already occurred. Similarly, long term impacts due to as yet unknown projects should be limited because the site lacks unique or exceptional biological resources and the land use implications of any additional development would occur only after Shasta Lake complied with the California Environmental Quality Act (CEQA), which requires mitigation if significant environmental consequences are identified.

Social and Cultural Resources

Land Use

Area A, except for the Knauf Project, the Shasta Lake Waste Water Treatment Plant, and two other commercial or industrial facilities is undeveloped land. The nature and timing of development of the undeveloped portion of the remaining approximately 130 acres of Area A is uncertain and speculative. A map, of uncertain date, provided by Shasta Lake indicates industrial and public facility usage for areas west and south of Churn Creek, with suburban residential usage to the north and east of the creek. Roughly the eastern third of Area A is indicated as potential suburban residential use; perhaps 10 percent is designated as a community park along Churn Creek; and the remainder is designated for industrial and public facilities. A Tentative Subdivision Map covering 20 to 25 acres within Area A, was once approved, but the applicant withdrew the development proposal, and there are no pending proposals to develop the remainder of Area A.

Approval of the Proposed Action would merely allow Shasta Lake to more cheaply supply developments it has already approved and can otherwise service.

Cultural Resources

Because Shasta Lake has an alternative water supply for Area A, apart from the Knauf Project, which has already been built, the Proposed Action would not cause any impacts that could not occur without it. The proposed inclusion is an unexceptional parcel without known cultural resources. Therefore, no negative impacts to cultural resources are anticipated.

As with the biological resources, appropriate reviews were made prior to construction and no further physical change is expected in the short run. In the long run, any additional development to be approved within Area A must be consistent with Shasta Lake's General Plan and Zoning Ordinance, must be approved by the Planning Commission or City Council of Shasta Lake, and would occur only after Shasta Lake complies with the California Environmental Quality Act which would require archaeological surveys and, if significant environmental consequences are identified, the preparation of an Environmental Impact Report.

Indian Trust Assets

Because Shasta Lake has an alternative water supply for Area A, apart from the Knauf Project, which has already been built, the Proposed Action would not cause any impacts that could not occur without it. No Indian Trust Assets occur within Area A, although Indian Trust Assets occur about 3 miles north of the site along Shasta Dam Boulevard. No adverse affects on these assets is expected, although it is possible that development of Area A would create enough jobs to enhance the value of the trust lands for residential use.

Environmental Justice

The proposed expansion of the area for use of CVP water would not preferentially favor nor discriminate against any socioeconomic groups because the adjacent neighborhoods reflect a reasonable cross section of the social and economic groups in the Redding area.

On the contrary, approval of the Proposed Action would minimize Shasta Lake's costs in meeting its commitment to the Knauf Project, a source of employment in an economy that has recently lost several hundred jobs. These jobs would predominantly benefit lower to middle income families and would enhance the tax base of Shasta Lake, a city without substantial financial resources at this time.

Socioeconomic Resources: Other

Because Shasta Lake has an alternative water supply for Area A, apart from the Knauf Project, which has already been built, the Proposed Action would not cause any impacts that could not occur without it other than those associated with the operation of the Knauf Project. The potential impacts, which were the subject of controversy during the permitting of the plant, were primarily air and water quality problems which were addressed by the air and water quality permit conditions. Potential problems were also noted with regard to aesthetics, and a noise problem subsequently was created by the alteration of the plant design to accommodate air pollution controls. The aesthetic changes have already occurred and will be present regardless of the Proposed Action, and the noise impacts are being addressed by Knauf. The proposed inclusion would not impact the neighboring residential areas given that the Knauf Project has already been built and that the air, water, and noise concerns have been addressed.

Cumulative Impacts of Growth in Area A

Because Shasta Lake has an alternative water supply for Area A, apart from the Knauf Project, and could obtain water from up-stream water rights holders, if it paid a sufficient price, the Proposed Action would not cause any impacts that could not occur without it.

In the absence of other actions, the effect of Shasta Lake's decision to supply water to the Knauf project has been to reduce potential size of the City's population under present conditions by roughly 2 to 8 percent depending on whether or not potable water is used for process purposes. Because the City forecasts a growth from 10,000 to 25,000 people, with a tripling of the water requirement, the City will need to obtain relatively large quantities of new water, apart from Knauf, if it is to grow as projected. The decision to supply Knauf will have little impact on the ultimate size of Shasta Lake under either no-growth or high-growth assumptions.

Table 1: Water Demand For the City of Shasta Lake			
	Gallons/Day	**Acre Ft./Day**	**Acre Ft./Year**
Maximum Potable Water Demand			
City's Contract W1134-IR8 Allocation	2,454,876	7.53	2,750
McConnell Purchase	892,682	2.74	1,000
Other Water Purchases +/- Acre Ft.	44,634	0.14	50[4]
Total Water Available	3,392,192	10.41	3,800
City Consumption	2,230,000	6.84	2,498
Remaining Water	1,162,192	3.66	1,302
Knauf Need (Maximum Potable Water Case)	201,200	0.6	225.34
Remainder Area A Water Need (Maximum Case Full Build Out)	43,200	0.13	48.4
Total Water Need Area A (Maximum Case Full Build Out)	264,800	0.81	273.74
Difference Between Supply and Need (Maximum Case)	917,909	2.82	1028.26
Minimum Potable Water Demand			
Knauf Uses Maximum Reclaimed Water	46,200	0.14	51.7
Difference Between Supply and Need (Minumum Case)	1,107,819	3.40	1242.26
Potential Potable Water Savings			
Knauf Uses Maximum Reclaimed Water	(155,000)	(0.48)	(174)
Others Use Reclaimed Water for Landscaping	(36,150)	(0.11)	(41[5])
Total Area A Water Savings (Minimum Case)	(191,150)	(0.57)	(215)

[4]The City of Shasta Lake has historically purchased up to 50 acre-feet per year from outside sources. Recently the City has contracted to purchase 1000 acre-feet per year from a non-CVP source. The City intends to continue acquiring water from outside sources. This table assumes that the City of Shasta Lake will only purchase, in the future, its historical purchase of 50 acre-feet year from other CVP contractors.

[5]The landscape acreage is estimated to be approximately 10 percent of the remaining 136 acres in Area A. Since the reclaimed water line will be installed as part of the Knauf project, others may use the water if there is any excess. If Knauf uses all of the reclaimed water, the resulting difference is still within the overall allocation.

CONSULTATION AND COORDINATION

A draft EA was circulated for public review and responses to the comments received are attached to this EA. No consultation was required under the Endangered Species Act because Reclamation determined the environmental affects of the proposed inclusion would be limited to the ability of Shasta Lake's contractors to use reclaimed water in Area A, and that there would, therfore, be no affects on listed species or their habitats.

Contacts and documentation used in the preparation of the Draft EA were:

CH2M Hill, Inc. 1997. Knauf Fiber Glass Manufacturing Facility Final Environmental Impact Report. Prepared for the City of Shasta Lake.

CH2M Hill, Inc. 1997. Knauf Fiber Glass Manufacturing Facility Revised Draft Environmental Impact Report. Prepared for the City of Shasta Lake.

Duckett, John. Finance Services Manager. City of Shasta Lake. Telephone conversation regarding water supply and distribution for the City of Shasta Lake.

Harvey, Alan. City Manager. City of Shasta Lake. August 7, 1998 and September 1, 1998 telephone conversations regarding water supply and distribution for the City of Shasta Lake.

Smith, Sam. Managing Engineer. Pace Engineering, Inc. Telephone conversation regarding water treatment for the City of Shasta Lake.

Thompson, Carla. Development Services Director. City of Shasta Lake. Telephone conversation regarding water supply and distribution for the City of Shasta Lake.